

Appendix A: Amended Claims

1-24. (Canceled)

25. (Currently amended) An information backup system comprising:

a plurality of computer systems each including a disk subsystem and a network interface, wherein each computer system is configured to direct disk I/O requests to said network interface;

a network, to which each of said computer systems is coupled, said network configured to communicate said disk I/O requests and data associated with said disk I/O requests among said plurality of computer systems;

a functionally coherent and physically distributed cache memory comprising a plurality of memory portions each within a memory of a computer system among said plurality of computer systems; and

a functionally coherent and physically distributed data storage device comprising a plurality of data storage portions each within a data storage device of a computer system among said plurality of computer systems,

wherein said distributed data storage device responds to said disk I/O requests from said plurality of computers as a single logical disk.

26. (Currently amended) The system of claim 25 wherein said functionally coherent and physically distributed cache memory is operable as data cache for said disk I/O operations with said functionally coherent and physically distributed data storage device.

27-29. (Canceled)

30. (Currently amended) The system of claim 25 wherein said functionally coherent and physically distributed data storage device is configured as a functionally coherent and physically distributed redundant array of independent disks (RAID) storage device.

31. (Currently amended) The system of claim 25 wherein said memory portions are portions of volatile random access memories of said plurality of computer systems.

32-36. (Canceled)

37. (Currently amended) A method for operating an information backup system comprising:

organizing into a unified logical disk storage device at least one data storage portion from each of a plurality of computer systems of said network; and

performing disk I/O access to the unified data storage device using a distributed cache memory that includes at least one memory portion from each of said plurality of computer systems of said information backup system.

38-40. (Canceled)

41. (Currently amended) The method of claim 37 further comprising configuring said distributed data storage device as a distributed redundant array of independent disks (RAID) storage device.

42. (Previously presented) The method of claim 37 in which volatile memories are configured as at least some of the memory portions.

43. (Canceled)

44. (Currently amended) An information backup system comprising:
a plurality of computer systems;
a communication network, to which said computer systems are communicatively coupled;

a distributed cache memory comprising a plurality of memory portions, each memory portion being a portion of a memory of a computer system among said plurality of computer systems, said memory portions being organized to function as a single coherent cache memory; and

a distributed data storage device comprising a plurality of data storage portions, each data storage portion being a portion of storage of one or more data storage devices of a computer system among said plurality of computer systems, said data storage portions being organized to function as a single data storage device, wherein said computer systems can perform disk I/O with said distributed data storage device as a single logical disk and wherein said distributed cache memory is operable as a cache memory for said distributed data storage device.

45. (Currently amended) An information backup system comprising:
a plurality of computer systems;

each computer system among at least a first subset of said computer systems having first means for performing distributed caching, wherein each first means provides a portion of memory from its corresponding computer system, wherein all of said first means cooperate to provide a unified system cache memory from among said portions of memory; and
each computer system among said first subset further having second means for performing distributed data storage, wherein each second means provides a portion of data storage of a data storage device from its corresponding computer system, wherein all of said second means cooperate to provide a distributed disk storage device, wherein said computer systems access said distributed disk storage device to perform disk I/O as a single logical disk.

46. (Currently amended) A method for an information backup system comprising a plurality of computer systems, the method comprising:

each computer system among said plurality of computer systems providing a portion of its random access memory, collectively referred to as a plurality of memory portions;
organizing said memory portions into a unified cache memory;
each computer system among said plurality of computer systems providing a portion or portions of one or more its data storage devices, collectively referred to as a plurality of data storage portions; and
organizing said data storage portions into a distributed data storage device; and

providing disk I/O access to said distributed data storage device, wherein any of said plurality of computer systems can access said distributed data storage device as a single logical disk.